

CLAIMS:

1. A thermoelectric converting device comprising:  
a P type thermoelectric element;  
an N type thermoelectric element, the N type thermoelectric element connected with the P type thermoelectric element and the N type thermoelectric element alternately to be electrically in series;  
an electrode circuit contacting the P type thermoelectric element and the N type thermoelectric element;  
an insulation substrate;  
at least one electric circuit forming a layer with the electrode circuit via the insulation substrate; and  
a conduction member for electrically conducting the electrode circuit and the electric circuit.

2. The thermoelectric converting device according to Claim 1, wherein the P type thermoelectric element and the N type thermoelectric element are linearly positioned at the electrode circuit respectively.

3. The thermoelectric converting device according to Claim 1, wherein the electrode circuit and the electric circuit are provided at a surface of the insulation substrate respectively.

4. The thermoelectric converting device according to Claim 1, wherein the insulation substrate includes a penetration bore and the conduction member is provided at the penetration bore.

5. A thermoelectric converting device comprising:  
a P type thermoelectric element;  
an N type thermoelectric element connected with the P type thermoelectric element alternately to be electrically in series,  
an electrode circuit having a heat radiating side electrode circuit which connects a heat radiating surface of the P type thermoelectric element with a heat radiating side surface of the N type thermoelectric element and cooling side electrode circuit which

connects a cooling surface of the P type thermoelectric element with a cooling surface of the N type thermoelectric element,  
wherein at least either the heat radiating side electrode circuit or the cooling side electrode circuit is formed on two or more faces.

6. The thermoelectric converting device according to Claim 5, further comprising:

an insulating substrate having one surface as one face at which the electrode circuit is provided and the other surface as another face at which an electric circuit is provided which electrically conducts to the electrode circuit.

7. A manufacturing method of a thermoelectric converting device comprising:  
a first process for positioning a bar shaped P type thermoelectric element and a bar shaped N type thermoelectric element in parallel each other at an electrode circuit;  
a second process for cutting the bar shaped P type thermoelectric element and the bar shaped N type thermoelectric element to form P type thermoelectric elements and N type thermoelectric elements; and  
a third process for arranging the P type thermoelectric elements and the N type thermoelectric elements alternately to be electrically in series by connecting the electrode circuit to the P type thermoelectric element and the N type thermoelectric element.